

CLAIMS

What is claimed is:

1. A dynamic vibration reduction system, applicable in an electronic product, the electronic device including a carrier to support an electronic device, the dynamic vibration
5 reduction system comprising:
 - a main buffering unit, connected to the carrier to reduce vibrations of the carrier;
 - an auxiliary buffering unit, movably mounted on one side of the carrier; and
 - a driving module, assembled in the auxiliary buffering unit to either abut the auxiliary
10 buffering unit against the carrier to reduce vibrations of the carrier, or spacing the auxiliary
buffering unit away from the carrier at a predetermined distance.
2. The dynamic vibration reduction system of claim 1, wherein the main buffering unit is
an elastic element.
3. The dynamic vibration reduction system of claim 2, wherein the elastic element is a
spring.
- 15 4. The dynamic vibration reduction system of claim 1, wherein the main buffering unit is
a damper.
5. The dynamic vibration reduction system of claim 1, wherein the auxiliary buffering
unit is an elastic element.
6. The dynamic vibration reduction system of claim 5, wherein the elastic element is a
20 spring.
7. The dynamic vibration reduction system of claim 1, wherein the auxiliary buffering
unit is a damper.

8. The dynamic vibration reduction system of claim 1, wherein the driving module further comprises:

a passively moving body, mounted on a bottom of the carrier to support the auxiliary buffering unit, wherein a retaining part is formed on a bottom of the passively moving body;

5 an actively moving body, mounted on a bottom of the passively moving body, wherein a standoff is formed on the actively moving body to correspond to the retaining part of the passively moving body, and an engaging portion is formed at one end of the actively moving body; and

10 a driving motor, connected to an the engaging portion and mounted on one side of the passively moving body, wherein when the driver motor operates, the actively moving body moves toward a predetermined direction, so as to driving gear engages with the teeth of the engaging portion to drive the actively moving body, so that the passively moving body is raised at a predetermined distance with the mutual action of the retaining portion and the standoff to drive the auxiliary buffering unit to engage with the carrier.

15 9. The dynamic vibration reduction system of claim 8, wherein the retaining part is a grooved slant block.

10. The dynamic vibration reduction system of claim 9, wherein the grooved slant block is formed on the bottom of the passively moving body.

20 11. The dynamic vibration reduction system of claim 8, wherein the standoff is a slant protrusion.

12. The dynamic vibration reduction system of claim 11, wherein the slant protrusion is formed on the bottom of the passively moving body.

13. The dynamic vibration reduction system of claim 8, wherein the engaging portion has

a plurality of teeth.

14. The dynamic vibration reduction system of claim 13, wherein the driver motor has a driving gear to engage with the teeth of the engaging portion.

15. The dynamic vibration reduction system of claim 8, wherein a positioning arm is further formed to straightly extend downward from the bottom of the passively moving body.

16. The dynamic vibration reduction system of claim 15, further comprising a positioning protuberance on the electronic product to limit the moving range of the actively moving body.

17. The dynamic vibration reduction system of claim 15, wherein the positioning arm has a slot to engage with the positioning protuberance.

18. A dynamic vibration reduction system, applicable in an electronic product, the electronic device including a carrier to support an electronic device, the dynamic vibration reduction system comprising:

a main buffering unit, connected to the carrier to reduce vibrations of the carrier;
two auxiliary buffering unit, movably mounted on two sides of the carrier; and

a driving module, assembled in the auxiliary buffering unit to either abut the auxiliary buffering unit against the carrier to reduce vibrations of the carrier, or spacing the auxiliary buffering unit away from the carrier at a predetermined distance.

19. The dynamic vibration reduction system of claim 18, wherein the main buffering unit is an elastic element.

20. The dynamic vibration reduction system of claim 19, wherein the elastic element is a spring.

21. The dynamic vibration reduction system of claim 18, wherein the main buffering unit is a damper.

22. The dynamic vibration reduction system of claim 18, wherein the auxiliary buffering unit is an elastic element.

5 23. The dynamic vibration reduction system of claim 22, wherein the elastic element is a spring.

24. The dynamic vibration reduction system of claim 18, wherein the auxiliary buffering unit is a damper.